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(54) Title: SYSTEM AND METHOD FOR SERVING LOCAL AND GLOBAL MEDIA CONTENT

(57) Abstract

A system (10) and a method for combining broadcast media content with additional content at a local site (20) according to at least one locally determined characteristic of the audience to which the combined content is served. The format of the added content, including the layout and the type of content, is optionally variable, but is preferably adjusted according to at least one characteristic of the audience. The broadcast media and additional contents are combined by the local site, preferably according to a template, and the displayed to the audience at the local site. Preferably, the template contains information concerning the type of data objects to be displayed, and their size and location on the display, as well as the timing of display and transition to their display, such that the template describes how to process and display the data. Also preferably, the added content can be specifically determined for small audiences.

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SYSTEM AND METHOD FOR SERVING LOCAL AND GLOBAL MEDIA CONTENT

FIELD AND BACKGROUND OF THE INVENTION

The present invention relates to a system for combining broadcast media with another source of content for serving to an audience according to at least one characteristic of that audience, and in particular, for such a system and method which provides specific advertisements to the audience in combination with the broadcast media.

Broadcast media, such as television and radio broadcasts, and streaming audio and streaming video data, can be served to a number of receivers, which could include a computer with a monitor screen for example. Since such media can be served through a network by a central server, the possibility exists to personalize the media content for an audience with at least one characteristic determined according to location and/or time. For example, the media content could be adjusted for viewers in the office of a physician, those waiting in an airport, bus station or train station, or in a government office, or patients in a hospital. The content could be further adjusted according to different segments of the viewers. For example, the combined media content could feature a children's program for the office of a pediatrician, more mature content for those viewers waiting in a government office, and a mixture of different types of content for airports, bus or train stations. Such adjustments to the content could even include different types of advertisements, thereby enabling the system to both entertain audience members and to generate advertising revenues.

However, altering the broadcast media content separately for such small audiences is tedious and inefficient, since currently such alterations must be performed on the broadcast media itself. Thus, the ability to adjust broadcast media for different audiences has not been fully realized.

One attempted solution to this problem is provided through WebTV Plus Service (WebTV Networks, Inc.; *http://webtv.com* as of January 16, 2000). However, WebTV only customizes content for individual users through a particular device, such that customization is based upon user interaction rather than upon the location of the display device.

Another attempted solution which provides only advertisements to local audiences is the Ebillboard™ device of NGN.com (*http://www.ngn.com/home.htm* as of January 16, 2000). This device provides location dependent advertising but cannot provide other types of content, such as video data for example, and as such is merely a more sophisticated type of billboard.

Therefore, there is an unmet need for, and it would be highly useful to have, a system and a method for combining broadcast media content with content adjusted for an audience

according to at least one characteristic of the audience, such as the location of the audience, the purpose of the audience at that location, the time at which the combined content is served to the audience and other characteristics of the audience, such that the combined media content could be altered for viewing by small, select audiences, for example in order to display selected advertisements.

SUMMARY OF THE INVENTION

The present invention is of a system and a method for combining broadcast media content with additional content at a local site according to at least one locally determined characteristic of the audience to which the combined content is served. Hereinafter, the term "broadcast media" refers to any publicly available content which is passively received through some type of reception mechanism. The different types of broadcast media content encompassed within the present invention include, but are not limited to, television and radio broadcasts, streaming audio and streaming video data, computer generated broadcast data, data provided through a media player such as a videotape player, a DVD (digital video disc) player, an audiotape player, and a compact disk (CD) player, and broadcast data available through any other transmission mechanism such as the Internet or an intranet, or any other type of network.

The format of the added content, including the layout and the type of content, is optionally variable, but is preferably adjusted according to at least one characteristic of the audience. The broadcast media and additional contents are combined by the local site, preferably according to a template, and then displayed to the audience at the local site. Preferably, the template contains at least information concerning what data objects are displayed, when these objects are displayed and how these objects are displayed.

For example, the template preferably includes information with regard to the type of data objects to be displayed, and their size and location on the display, as well the timing of display and transition to, or effects on, their display, such that the template describes how to process and display the data. Also preferably, the added content includes an advertisement. Thus, the added content can be specifically determined for small audiences, such as patients waiting in the office of a physician, travellers waiting in a train station, bus station or airport, or shoppers at a supermarket for example.

According to the present invention, there is provided a method for combining broadcast media content and added content into combined content according to a locally determined characteristic of an audience, the steps of the method comprising: (a) providing a central distribution facility having a global server for serving at least a portion of the added content; (b)

providing a local site for displaying the combined content to the audience; (c) connecting the local site to the global server; (d) sending the at least a portion of the added content from the global server to the local site; (e) receiving the at least a portion of the added content by the local site according to the locally determined characteristic of the audience; (f) receiving the broadcast media content by the local site; (g) combining the at least a portion of the added content and the broadcast media content by the local site to form the combined content; and (h) displaying the combined content to the audience on a display device.

According to another embodiment of the present invention, there is provided a system for combining broadcast media content and added content into combined content according to a locally determined characteristic of an audience, the system comprising: (a) a central distribution facility including: (i) an added content generator for storing the added content; and (ii) a global server for serving the added content; (b) a local site for receiving the added content from the global server according to the locally determined characteristic of the audience and for receiving the broadcast media content, and for combining the broadcast media content and the added content to form the combined content; and (c) a display device connected to the local site for receiving the combined content and for displaying the combined content to the audience.

Hereinafter, the term "audience" includes one or more individuals present at a particular location in a particular environment during a particular period of time.

Hereinafter, the term "display device" also includes a storage device for storing the data for later display, as well as a television display screen with at least one speaker, a display screen or one or more speakers separately, as well as any other type of device for displaying any type of media.

Hereinafter, the term "product" includes both physical products and services (tangible and intangible products), as well as ideas and concepts.

Hereinafter, the term "network" refers to a connection between any two or more computational devices which permits the transmission of data.

Hereinafter, the term "computational device" includes, but is not limited to, personal computers (PC) having an operating system such as DOS, Windows™, OS/2™ or Linux; Macintosh™ computers; computers having JAVA™-OS as the operating system; graphical workstations such as the computers of Sun Microsystems™ and Silicon Graphics™, and other computers having some version of the UNIX operating system such as AIX™ or SOLARIS™ of Sun Microsystems™; or any other known and available operating system, or any device, including but not limited to: laptops, hand-held computers, enhanced cellular telephones, wearable computers of any sort, which can be connected to a network as previously defined and

which have an operating system. Hereinafter, the term "Windows™" includes but is not limited to Windows95™, Windows 3.x™ in which "x" is an integer such as "1", Windows NT™, Windows98™, Windows CE™, Windows2000™, and any upgraded versions of these operating systems by Microsoft Corp. (USA).

For the present invention, a software application could be written in substantially any suitable programming language, which could easily be selected by one of ordinary skill in the art. The programming language chosen should be compatible with the computational device according to which the software application is executed. Examples of suitable programming languages include, but are not limited to, C, C++ and Java.

In addition, the present invention could be implemented as software, firmware or hardware, or as a combination thereof. For any of these implementations, the functional steps performed by the method could be described as a plurality of instructions performed by a data processor.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is herein described, by way of example only, with reference to the accompanying drawings, wherein:

FIG. 1 is a schematic block diagram illustrating an exemplary system according to the present invention; and

FIG. 2 is a flowchart illustrating an exemplary method according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is of a system and a method for combining broadcast media content with additional content at a local site according to at least one locally determined characteristic of the audience to which the combined content is served. The different types of broadcast media content encompassed within the present invention include, but are not limited to, television and radio broadcasts, streaming audio and streaming video data, computer generated broadcast data, data provided through a media player such as a videotape player, a DVD (digital video disc) player, an audiotape player, and a compact disk (CD) player, and broadcast data available through any other transmission mechanism such as the Internet or an intranet. The format of the added content, including the layout and the type of content, is optionally variable, but is preferably adjusted according to at least one characteristic of the audience. The broadcast media and additional contents are combined by the local site, preferably according to a template, and then displayed to the audience at the local site.

Preferably, the template contains information concerning the type of data objects to be displayed, and their size and location on the display, as well the timing of display and transition to their display, such that the template describes how to process and display the data. Also preferably, the added content includes an advertisement. Thus, the added content can be specifically determined for small audiences, such as patients waiting in the office of a physician, travellers waiting in a train station, bus station or airport, or shoppers at a supermarket for example.

According to preferred embodiments of the present invention, a plurality of local sites are controlled by a central server. One or more central servers can be connected to a main server. The main server can then optionally act as an "ad portal" for advertisements, such that advertisements may be purchased through the main server operating the "ad portal" for display on the plurality of local sites. The advertisements are optionally and more preferably purchased through the main server at any location through the Internet. The advertisements may optionally include different types of media, such as still images, text, video and audio data, and a combination thereof. Such purchases may even optionally be performed internationally, such that advertisements are preferably displayed on local sites in a plurality of different countries. Alternatively, advertisements may be selected and displayed at particular local sites according to the particular characteristics of these sites and the audience at those sites.

The "ad portal" is not limited to the system described herein, but may optionally collect other kinds of advertising media while enhancing variety in an advertising campaign.

The advertisements are more preferably purchased as part of a campaign, which may optionally be at least partially sugested by the portal based on stored histories of other executed campaigns. Most preferably, the system suggests a campaign to the requesting user according to an analysis of the budget and preferences of the requesting user. A "real time" or near real time advertising campaign can optionally and preferably be purchased and run internationally using the "ad portal".

According to another preferred embodiment of the present invention, the local site preferably includes stand alone point-of-sale (POS) terminal, through which the viewer may optionally purchase one or more products which are advertised at the local site. More preferably, the product or products are sold at a discount through the POS terminal, or according to some other incentive offer for purchase. The POS terminal optionally and more preferably includes a swipe card reader for accepting the details of the credit card of the viewer.

The principles and operation of the system and method according to the present invention may be better understood with reference to the drawings and the accompanying description.

Referring now to the drawings, Figure 1 is a schematic block diagram illustrating an exemplary overall system according to the present invention for combining broadcast media content and added content according to at least one characteristic of the audience for the combined content. For the purposes of illustration only and without intending to be limiting, the following description centers upon video content for the broadcast media content, it being understood that other types of media content could be substituted by one of ordinary skill in the art.

A system **10** features a central content distribution facility **12** for distributing global custom content. The term "global custom content" refers to customized content which is distributed to a plurality of individual receiving sites, as described in greater detail below. Central content distribution facility **12** could be implemented as one or more computers connected through a network, for example.

Central content distribution facility **12** preferably controls and determines the usage policy through templates and supplies the necessary software, firmware or hardware tools to program these templates. Central content distribution facility **12** features a global custom content generator **14** and a global content server **16**. Global custom content generator **14** generates the global customized content.

The global custom content is then passed to global content server **16**, which serves the global custom content. Global custom content server **16** could be implemented as a computer, such as a PC computer, which is connected to a network **18** through any standard network connection. The standard network connection for global custom content server **16** could be wired or wireless, just as network **18** could be either a wired or wireless network.

Network **18** could be any type of network for connecting computers, including but not limited to, a WAN (wide area network), a LAN (local area network), a peer-to-peer network (PTP), a cable network, a wireless network or the POTS (plain old telephone system) network. The type of standard network connection would therefore depend upon the type of network **18**. For example, for a LAN, global custom content server **16** could be connected through an Ethernet card. For the POTS network, global custom content server **16** could be connected through a dial-up modem for example. Other examples of implementations could easily be determined by one of ordinary skill in the art.

Global custom content server **16** serves the global custom content through network **18** to a local site **20**. Local site **20** receives publicly available broadcast media content and combines the broadcast media content with the global custom content to form combined content which is then served to an audience. The different types of broadcast media content encompassed within

the present invention include, but are not limited to, television and radio broadcasts, streaming audio and streaming video data, computer generated broadcast data, data provided through a media player such as a videotape player, a DVD (digital video disc) player, an audiotape player, and a compact disk (CD) player, and broadcast data available through any other transmission mechanism such as the Internet or an intranet.

The added content is preferably adjusted according to at least one characteristic of the audience at local site **20**. For example, the at least one characteristic could be determined according to the particular location of local site **20**, the purpose of the audience at that location, the composition of the audience at that location, the time at which the combined content is being served to the audience, and the environment of that location, or a combination thereof. More preferably, an uplink channel **19** connects local site **20** to central content distribution facility **12** for receiving such information about the local environment as the temperature in that environment and the type of broadcast media content being viewed at that location. The type of broadcast media content could be determined according to a particular television channel being received by local site **20**, for example. Thus, uplink channel **19** preferably enables location and environment specific information to be sent to central content distribution facility **12**.

For example, local site **20** could be a supermarket. In this example, the audience members are shoppers at the supermarket, such that the at least one characteristic could be related to the purpose of the supermarket, which is shopping for food and other grocery items; the composition of the audience, which could include parents with children and so forth; and the time at which the combined content is being broadcast, which could also determine the composition of the audience. For example, children are more likely to be present in the supermarket in the morning rather than late at night.

As another example, local site **20** could be the office of a physician. In this example, the audience members are patients of the physician, such that the at least one characteristic of the audience could be an interest in health issues. In either example, the added content is preferably tailored to the characteristic or characteristics of the audience, such that the shoppers might be served added content which is related to cooking, while the patients might be served added content which is related to health care.

According to a preferred embodiment of the present invention, the added content includes an advertisement. This advertisement is preferably adjusted according to the at least one characteristic of the audience, such that different audiences may receive different advertisements The format of the added content is optionally variable, such that the added content could include text, static graphics, animated graphics, video stream data, audio stream

data, or any other kind of computer formatted data for these types of content. Thus, both the format and the identity of the added content is preferably variable, more preferably according to the at least one characteristic of the audience of the combined content.

According to preferred embodiments of the present invention, although the advertisements are preferably added locally to the content being displayed at local site **20**, the advertisements are purchased for a plurality of local sites **20** through a main facility **13**. Main facility **13** can then optionally act as an "ad portal" for advertisements, such that advertisements may be purchased through main facility **13** for display on the plurality of local sites. The advertisements may optionally include different types of media, such as still images, text, video and audio data, and a combination thereof. Such purchases may even optionally be performed internationally, such that advertisements are preferably displayed on local sites **20** in a plurality of different countries. Alternatively, advertisements may be selected and displayed at particular local sites **20** according to the particular characteristics of these local sites **20**.

The advertisements are more preferably purchased as part of a campaign, which may optionally be at least partially determined according to stored histories of other executed campaigns. Also more preferably, main facility **13** enables a "real time" or near real time advertising campaign to be purchased and run internationally. Most preferably, main facility **13** suggests a campaign to the requesting user according to an analysis of the budget and preferences of the requesting user.

According to the present invention, there are two different embodiments for local site **20**. According to the first embodiment, local site **20** features a local content processor **22** for receiving both the global custom content from global custom content server **16** and the broadcast media content from a broadcast content generator **24**. Local content processor **22** then combines the global custom content and the broadcast media content to form the combined content, which is then displayed to the audience. Hereinafter, the term "display" includes visible display, audible display or a combination thereof.

Preferably, local content processor **22** includes a broadcast media receiver **26** for receiving the broadcast media content from broadcast content generator **24**. For example, broadcast media receiver **26** could be a television tuner connected to a video capturing device. The television broadcast signals would then be converted to video signals by the video capturing device. The video signals would then be converted to a digital stream of data.

Local content processor **22** also includes a computing platform **28** for operating at least one software module. For example, the software module could include a software object, optionally available as part of the Windows™ operating system, which captures the digital

stream data. The captured data from the publicly available broadcast content is then processed as at least one data object. The global custom content is also processed as at least one data object. These different data objects are then combined to form the combined content.

One example of a method for forming the combined content is through an added software layer, operated by computing platform **28**. The added software layer preferably alters each type of data object, for example to alter the size and location of the object in the final display. The data object is then added to a mixture of such objects, preferably at a particular time, to form the combined content. More preferably, such a mixture of objects is prepared and determined according to a template. Optionally and preferably, the template is received from global custom content server **16**.

The template preferably determines the identity of each data object, how the object is to be displayed, preferably including the size and location of that object in the final display, and when the object is to be displayed. The template is more preferably described in terms of a language which is then read by a parser software module. The parser software module then invokes a library of functions, preferably of JavaScript™ functions, in order to prepare and mix the data objects. Thus, the template minimizes the amount of data related to the display of the data objects which is sent by global custom content server **16** to local site **20**.

The mixture of data objects is then preferably arranged by a client software module, such as a JavaScript™-enabled ActiveX™ control, which is able to manipulate data objects with mixed formats. The client software module then sends the data as a digital stream for display. Preferably, this digital stream is then captured by an encoder **30**. Encoder **30** then translates the digital stream into a video format.

The video format is then received by, such that the combined content is then displayed to the audience through, a passive display device **32**. For the display of the video format, passive display device is preferably a television display screen with at least one speaker. However, passive display device **32** could be a display screen or one or more speakers separately for example. Audio data could be similarly processed and displayed as described above for the video data.

A second embodiment for local site **20** according to the present invention is a local content distribution facility **34**. Local content distribution facility **34** receives the global custom content from global custom content server **16** through network **18**. Local content distribution facility **34** then adds local custom content generated by a local custom content generator **36**. This local custom content is served by a local custom content server **38**, with the global custom content, to local content processor **22** through a local network **40**, such as a LAN (local access

network) for example. Local content processor **22** contains all of the features as described above. In addition, for this embodiment of the present invention, local content processor **22** adds the local custom content as one or more data objects to form part of the added content which is mixed with the broadcast media content to form the combined content. For example, the local custom content could be a message directed to a particular member of the audience by name. Thus, for the second, preferred embodiment of the present invention, completely locally generated, customized content is added to the broadcast media content and the global custom content to form the combined content.

According to other preferred embodiments of the present invention, local site **20** optionally features a point-of-sale (POS) terminal **42**, through which the viewer in the audience may optionally purchase one or more products which are advertised at local site **20**. More preferably, the product or products are sold at a discount through POS terminal **42**, or according to some other incentive offer for purchase. POS terminal **42** optionally and more preferably includes a swipe card reader for accepting the details of the credit card of the viewer.

Figure 2 shows a flowchart of an exemplary method according to the present invention for combining publicly available broadcast media content with added content and then for displaying the combined content. Although this method is described with regard to video data, it is understood that the method could also be applied to audio data.

In step 1, the global customized content, as the added content, is acquired and stored in a centralized database in the central distribution facility. The global customized content is preferably adjusted according to at least one characteristic of the audience, which preferably includes but is not limited to a demographic characteristic, the time of the display, a characteristic of the location of the audience (such as office of a physician, supermarket and so forth), a characteristic of the environment of the location such as the temperature, and the purpose of the audience at that location (such as shopping, receiving health care and so forth). In step 2, preferably the template for displaying the combined added content, such as the global customized content, and broadcast media content is also stored in the central distribution facility. More preferably, there are multiple such templates stored in the central distribution facility and most preferably in the global custom content generator.

In step 3, the local site, as either a local content distribution facility or a local content processor, connects to the global server. Optionally, this connection is performed upon demand, although alternatively the connection could be performed at a predetermined connection time, or even a constant connection.

Once the connection has been established, in step 4 the global content server relays the

appropriate global customized content to the local content distribution facility or to the local content processor. Preferably, this step of receiving the global customized content includes the step of receiving the template for displaying the combined added content and broadcast media content. More preferably, each local site is able to receive a particular combination of customized content and a template, such that the local content is most preferably customized for that local site. For example, each local site could have a separate identification number or other identifier, such that the local custom content is customized according to this identifier.

Optionally and preferably, in step 5, the local content server of the local content distribution facility serves the local customized content to the local content processor. The local content is preferably adjusted according to at least one characteristic of the audience, which preferably includes but is not limited to a demographic characteristic, time of the display, a characteristic of the location of the audience (such as office of a physician, supermarket and so forth), a characteristic of the environment at that location, and the purpose of the audience at that location (such as shopping, such that an audio or visual message is sent to all shoppers; receiving health care and so forth).

In step 6, preferably the local content processor and/or the local content distribution facility sends information concerning the previously received content to the global server. The requested information is determined according to the template. For example, this information could include statistics about displayed data objects, or about such factors as the temperature and the type of broadcast media content received by the local site, which are readily measurable by the local site.

In step 7, preferably a synchronization mechanism is performed through the system to synchronize the computers in the system, including but not limited to the global content server, the local content server and the computing platform associated with the local content processor.

In step 8, the local content processor receives and processes the broadcast media content as previously described, in order to form data in a suitable format to be combined with the global customized content.

In step 9, the local content processor combines at least the global customized content and the broadcast media content, preferably according to the template. More preferably, additionally the local content processor combines the local customized content with the global customized content and the broadcast media content. Next, the local content processor displays the combined content on a display device, preferably according to the strict rules specified in the template, in step 10. In step 11, the local content processor gathers the requested statistics, and any other requested information, according to the request or requests in the template as described

with regard to step 6.

While the invention has been described with respect to a limited number of embodiments, it will be appreciated that many variations, modifications and other applications of the invention may be made.

WHAT IS CLAIMED IS:

1. A method for combining broadcast media content and added content into combined content according to a locally determined characteristic of an audience, the steps of the method comprising:

(a) providing a central distribution facility having a global server for serving at least a portion of the added content;

(b) providing a local site for displaying the combined content to the audience;

(c) connecting said local site to said global server;

(d) sending said at least a portion of the added content from said global server to said local site;

(e) receiving said at least a portion of the added content by said local site according to the locally determined characteristic of the audience;

(f) receiving the broadcast media content by the local site;

(g) combining said at least a portion of the added content and the broadcast media content by said local site to form the combined content; and

(h) displaying the combined content to the audience on a display device.

2. The method of claim 1, wherein the step of connecting said local site to said global server is performed according to a protocol selected from the group consisting of an on-demand connection, a constant connection, and a connection only at a predetermined connection time.

3. The method of claim 2, wherein said local site includes a local content processor for receiving the broadcast media content and said at least a portion of the added content, for combining the broadcast media content and said at least a portion of the added content to form the combined content and for displaying the combined content on said display device.

4. The method of claim 2, wherein said local site includes:

(i) a local content server for serving local customized content; and

(ii) a local content processor for receiving the broadcast media content, said local customized content and said at least a portion of the added content, for combining the broadcast media content, said local customized content and said at least a portion of the added content to form the combined content and for displaying the

combined content on said display device.

5. The method of claim 1, wherein the at least one locally determined characteristic of the audience is selected from the group consisting of a demographic characteristic, a time for displaying the combined content, a characteristic of a location of the audience, a characteristic of an environment at said location and a purpose of the audience at said location.

6. The method of claim 1, wherein the step of combining said at least a portion of the added content and the broadcast media content by said local site further includes the step of receiving a template for determining how said at least a portion of the added content is combined with the broadcast media content.

7. The method of claim 6, wherein said template includes a selection of the broadcast media content and a selection of said at least a portion of the added content for combining to form the added content.

8. The method of claim 7, wherein said template determines a timing for displaying said selection of the broadcast media content and said selection of said at least a portion of the added content.

9. The method of claim 8, wherein said template includes a layout for displaying the combined content and a transmission/viewing script for controlling a frequency of display for the combined content and an appropriate mixture of the broadcast media content and said at least a portion of the added content.

10. The method of claim 9, wherein said template includes a request for at least one type of information from said local site.

11. The method of claim 10, wherein said at least one type of information includes at least one statistic, and said local content site gathers said at least one statistic according to said template.

12. The method of claim 10, wherein said local content site sends said at least one statistic to said central distribution facility.

13. The method of claim 1, wherein said central distribution facility and said local site perform a synchronization mechanism to synchronize said global server and said local site.

14. The method of claim 1, wherein said display device is a video display device.

15. The method of claim 1, wherein said display device is an audio display device.

16. The method of claim 1, wherein said display device is a storage device.

17. The method of claim 1, wherein step (d) further comprises the steps of:

(i) constructing an advertising campaign, said campaign including an advertisement as said portion of the added content sent from said global server;

(ii) selecting at least one local site for displaying said advertisement for said campaign; and

(iii) sending said advertisement to said at least one local site.

18. The method of claim 17, wherein said advertising campaign is constructed at a main facility, said main facility being connected to said global server through the Internet.

19. A system for combining broadcast media content and added content into combined content according to a locally determined characteristic of an audience, the system comprising:

(a) a central distribution facility including:

(i) an added content generator for generating the added content; and

(ii) a global server for serving the added content;

(b) a local site for receiving the added content from said global server according to the locally determined characteristic of the audience and for receiving the broadcast media content, and for combining the broadcast media content and the added content to form the combined content; and

(c) a display device connected to said local site for receiving the combined content and for displaying the combined content to the audience.

20. The system of claim 19, wherein said display device is a video display device.

21. The system of claim 19, wherein said display device is an audio display device.

22. The system of claim 19, wherein said display device is a storage device.

23. The system of claim 19, wherein said central distribution facility further includes:

(iii) a template for determining at least a layout of the added content and the broadcast media content in the combined content.

24. The system of claim 23, wherein said template further determines an appropriate mixture of the added content and the broadcast media content for combining in the combined content.

25. The system of claim 23, wherein said template further determines a frequency of display for the added content and the broadcast content in the combined content.

26. The system of claim 23, further comprising:

(d) an uplink channel for transmitting from said local site to said central distribution facility;

wherein said template determines information for transmitting from said local site to said central distribution facility.

27. The system of claim 19, wherein said local site further comprises:

(i) a local content server for serving local customized content; and

(ii) a local content processor for receiving the broadcast media content, said local customized content and at least a portion of the added content, for combining the broadcast media content, said local customized content and said at least a portion of the added content to form the combined content and for displaying the combined content on said display device.

28. The system of claim 19, wherein the added content includes advertising for a product, the system further comprising:

(d) a point-of-sale (POS) terminal for purchasing at least one product advertised in said advertising, said POS terminal accepting payment details from a user in the

audience for purchasing said at least one product.

29. The system of claim 19, wherein the added content includes an advertisement, said advertisement being purchased for a plurality of local sites through said central distribution facility.

Figure 1

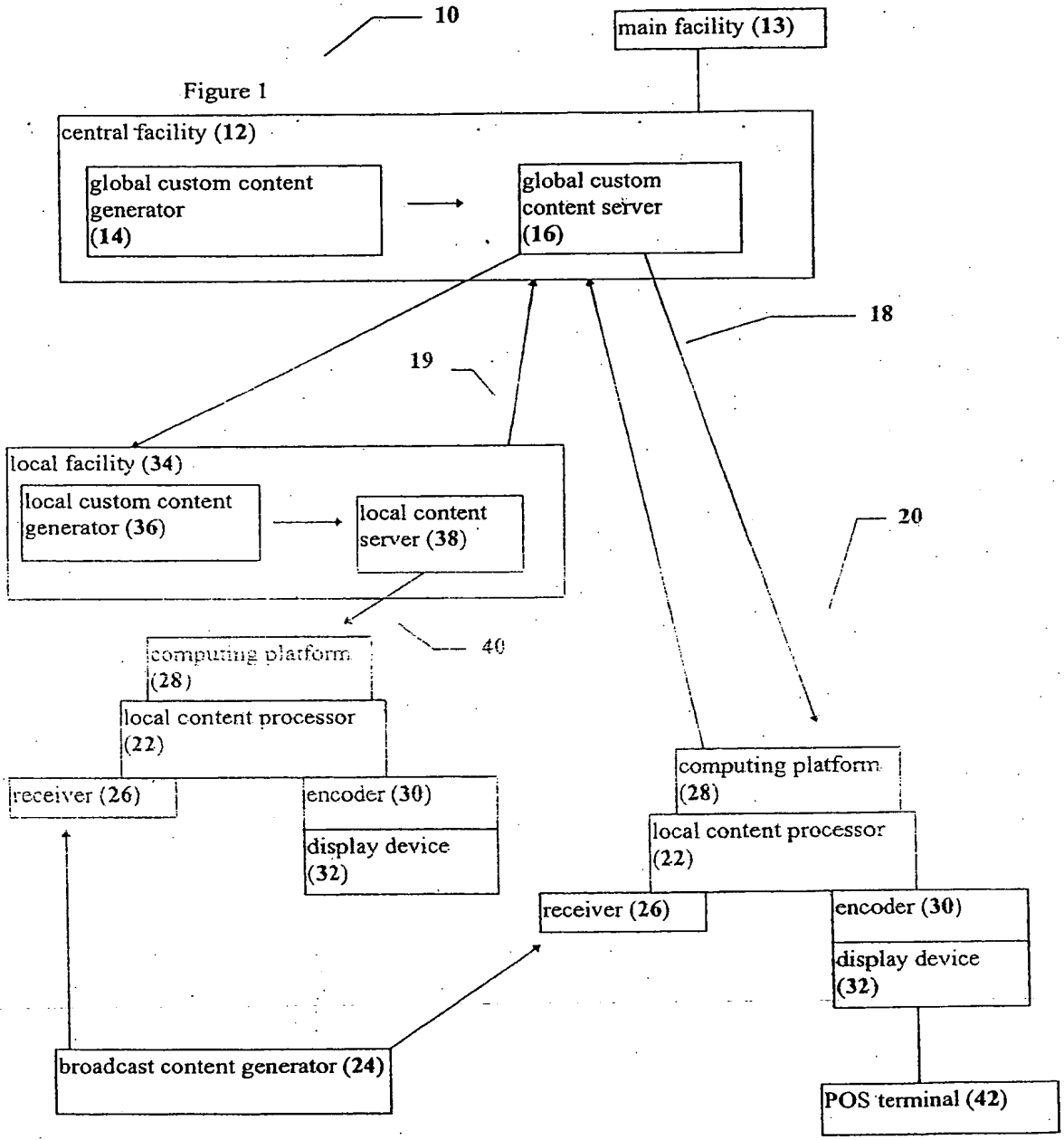

10
main facility (13)
central facility (12)
global custom content generator (14)
global custom content server (16)
18
19
local facility (34)
local custom content generator (36)
local content server (38)
20
40
computing platform (28)
local content processor (22)
receiver (26)
encoder (30)
display device (32)
computing platform (28)
local content processor (22)
receiver (26)
encoder (30)
display device (32)
broadcast content generator (24)
POS terminal (42)

Figure 2

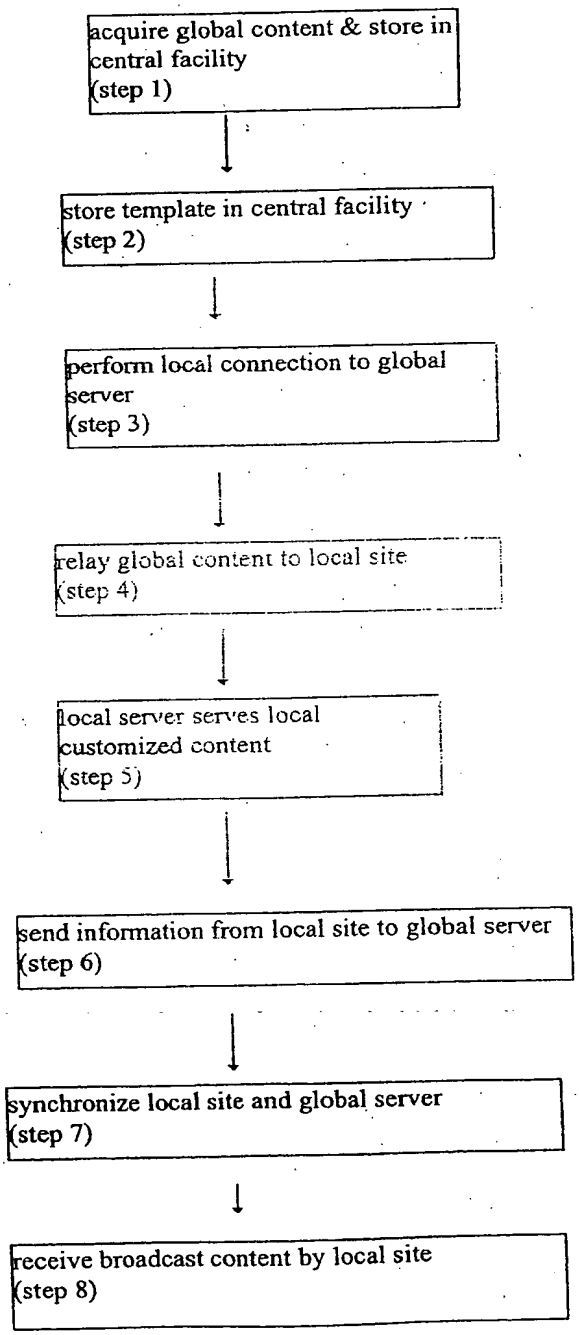
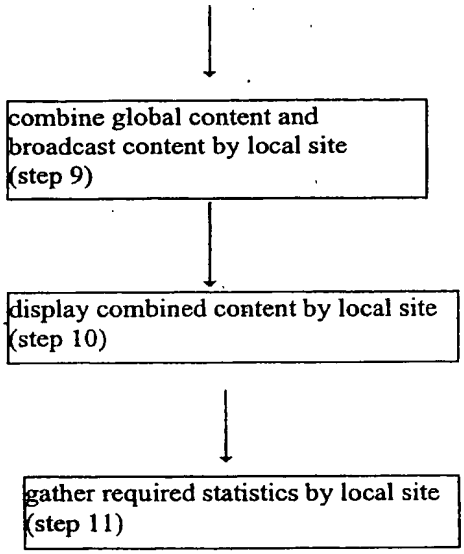

acquire global content & store in central facility (step 1)
store template in central facility (step 2)
perform local connection to global server (step 3)
relay global content to local site (step 4)
local server serves local customized content (step 5)
send information from local site to global server (step 6)
synchronize local site and global server (step 7)
receive broadcast content by local site (step 8)

Figure 2 (con't)



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/04222

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :H04N 7/173
US CL :709/219; 348/9, 12; 455/5.1
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 709/217, 218, 219; 348/6, 7, 9, 10, 12; 455/3.1, 4.1, 5.1, 6.1, 6.2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, E	US 6,075,551 A (BEREZOWSKI et al) 13 June 2000, see whole document.	1-29
Y, E	US 6,029,045 A (PICCO et al) 22 February 2000, see whole document.	1-29
A	US 5,761,601 A (NEMIROFSKY et al) 02 June 1998, see whole document.	1-29

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 18 JUNE 2000	Date of mailing of the international search report 04 AUG 2000
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